#13/a
Hawkins
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AMT2000-003

AMENDMENT

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Sir:

In response to the Office Action of March 28, 2002, please amend the above-identified application as follows:

In the Claims:

Please amend claims 4-7, 9-18, and 20-22 as follows:

Please cancels claim 2,3, and 19.

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4. (AMENDED) The interlocking assembly of Claim 1 further comprising self locking attributes for removably securing said permanent magnet without use of fasteners or adhesives.

5. (AMENDED) The interlocking assembly according to Claim 1 wherein said metal injection molding of said hollow structure provides reduction of a gap dimension between said magnet and plate thereby producing a more intense magnetic flux in said gap.

6. (AMENDED) The interlocking assembly according to Claim 1 wherein said metal injection molding of said hollow structure provides a structurally superior voice coil motor.

a' cancel.

7. (AMENDED) An interlocking assembly of a voice coil motor for a hard disk drive, said assembly comprising:

an arcuate shaped base member with a top surface and a bottom surface, said base member having a pair of upright columns molded to said top surface, said upright columns disposed at each end of said base member, a molded tapered recess formed on said top surface between said upright columns, said recess ingressing from a convex edge of said base and narrowing while extending opposite towards a concave edge, said tapered recess having side edges shaped to tightly receive and interlocking with;

a flat arcuate shaped permanent magnet having dovetail side edges to slidely interlock with said tapered recess of said base member, and

an arcuate shaped cover plate.

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9. (AMENDED) The interlocking assembly according to Claim 8 wherein said metal injection molding of said arcuate base member provides reduction of a gap between said magnet and plate thereby providing a more intense magnetic flux in said gap.

10. (AMENDED)An interlocking assembly of a voice coil motor for a hard disk drive, said assembly comprising:

an arcuate shaped base member formed by metal injection molding, said base member with a top surface and a bottom surface, a molded tapered and truncated recess formed centrally on said top surface, said recess ingressing from a convex edge of said base and narrowing while

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extending opposite towards a concave edge, forming a truncated recess, said recess having side edges shaped to tightly receive and to interlock with;

a flat arcuate shaped permanent magnet having dovetail side edges to slidely interlock with said tapered recess of said base member;

an arcuate shaped cover plate having a pair of molded down-reaching columns, said columns disposed under and at each end of said base member.

11. (AMENDED)The interlocking assembly of Claim 10 further comprising said arcuate shaped cover plate with said pair of upright columns is formed by metal injection molding, thus integrating three of four structural elements of a standard voice coil motor while reducing inventory management.

12. (AMENDED)The interlocking assembly according to Claim 11 wherein said metal injection molding has provided said tapered recess with self locking attributes for removably securing said permanent magnet without using fasteners or adhesives.

13. (AMENDED) The interlocking assembly according to Claim11 wherein said metal injection molding of said arcuate base member provides reduction of a gap between said magnet and plate thereby providing a more intense magnetic flux in said gap.

14. (AMENDED)An interlocking assembly of a voice coil motor for a

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hard disk drive, said assembly comprising:

an arcuate shaped base member with a top surface and a bottom surface, said base member having an upright column molded to said top surface, said upright column disposed at one end of said base member, a molded tapered and truncated recess formed centrally on said top surface, said recess ingressing from a convex edge of said base and narrowing while extending opposite towards a concave edge forming a truncated recess, said recess having side edges shaped to tightly receive and to interlock with,

a first flat arcuate shaped permanent magnet having dovetail side edges to slidely interlock with said tapered recess of said base member;

an arcuate shaped cover plate with a top surface and a bottom surface, said cover plate having a down-reaching column molded to said bottom surface, said column disposed under and opposite end of said column disposed on base member; said cover plate including a molded tapered and truncated recess formed centrally on surface, said recess ingressing from a convex edge of said cover plate and narrowing while extending opposite towards a concave edge, forming a truncated recess, said recess having side edges shaped to tightly receive and to interlock with;

a second flat arcuate shaped permanent magnet having dovetail side edges to slidely interlock with said tapered recess of said base member.

15. (AMENDED) The interlocking assembly of Claim 14 further comprising:

said arcuate shaped cover plate and said arcuate shaped base member,

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each with a supporting column, are formed by metal injection molding thus integrating four structural elements of a standard voice coil motor thereby reducing inventory management.

16. (AMENDED) The interlocking assembly according to Claim 15 wherein said metal injection molding has provided a tapered recess with self locking attributes for removably securing the permanent magnet without the use of fasteners or adhesives.

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18. (AMENDED)The interlocking method of Claim 17 further comprising, said metal injection molding of a hollow structure has integrated four structural parts of a standard voice coil motor therefore, eliminating the need for fasteners or adhesives while reducing inventory management of said structural parts.

Please cancel claim 19.

20. (AMENDED)The interlocking method according to Claim 17 wherein said metal injection molding of a hollow structure eliminates all failure problems associated with adhesives, such as, adhesive failure between individual parts, long term effects of outgassing and, adhesive spillover at the outside edges.

21. (AMENDED)The interlocking method according to Claim 17 wherein said metal injection molding provides a tapered recess with self locking attributes for removably securing the permanent magnet without fasteners or adhesives.

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22. (AMENDED) The interlocking method according to Claim 17 wherein said metal injection molding of a hollow structure provides reduction of a gap between said magnet and plate thereby providing a more intense magnetic flux in said gap.